



## CITY OF LODI COUNCIL COMMUNICATION

**AGENDA TITLE:** Adopt Resolution Authorizing the City Manager and Electric Utility Director to Procure up to \$10 Million Per Year of Energy and Capacity for FY09 Through FY11 (EUD)

**MEETING DATE:** November 21, 2007

**PREPARED BY** Electric Utility Director

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**RECOMMENDED ACTION:** Adopt a resolution authorizing the City Manager and/or Electric Utility Director to procure electricity and/or natural gas to reduce Electric Utility Department's open position (energy and capacity not fully procured on an advanced basis) for fiscal years 2008-09 (FY09) through 2010-11 (FY11) in accordance with the City of Lodi Energy Risk Management Policies at a total cost not to exceed \$10 million for each year.

**BACKGROUND INFORMATION:** Lodi's Electric Utility Department (EUD) must procure wholesale energy to meet its customer load obligations for FY09 and beyond. In FY09, EUD's projected "open position" is approximately 112 gigawatt-hours (GWh) or about 23% of EUD's total customer load obligation.

To the extent EUD has a net open position, it is exposed to price risk associated with market volatility since prices regularly rise and fall in the wholesale energy markets, particularly in day-ahead, hour ahead, and real-time markets. To reduce exposure to this price risk to an acceptable level, EUD's open position can be reduced through strategic market purchases. In FY08, for instance, a series of energy and natural gas purchases were consummated which reduced EUD's open position from over 65 percent to approximately 6 percent so far.

Attachment 1 is the load and resource balance statement for EUD for FY09. It details (i) EUD's projected load serving obligations, (ii) the sources of energy supply available to EUD from its own resource entitlements and (iii) the remaining energy balances that must be procured from the market in order to serve EUD's customers. This attachment shows a FY09 load obligation of 489 GWh, a contribution of 377 GWh from EUD's resource entitlements and a net open position of about 112 GWh. Attachment 1 also shows that the estimated cost of procuring energy and capacity to close EUD's FY09 open position is \$9.2 million based on recent energy market conditions and load and generation projections. Generation forecasts are subject to uncertainties of hydrology and plant availability. Pricing can also change substantially. The actual MWh and cost can vary widely from these early estimates.

EUD intends to narrow its FY09 open position substantially by making a number of energy and/or natural gas purchases over the next 8 months, although additional purchases may be made throughout FY09 when prudent to reduce risk and manage energy costs. As outlined in the Energy Risk Management Policy (ERMP) adopted by City Council on January 18, 2006, the City's Risk Oversight Committee (ROC) will review proposed transactions and purchasing strategies. In this regard, the ROC is charged with ensuring that proposed transactions conform with the accepted types of transactions detailed in the

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APPROVED:   
Blair King, City Manager

ERMP. ROC has the responsibility to ensure that business is conducted in accordance with the ERMP and will consider transactional risk limits.

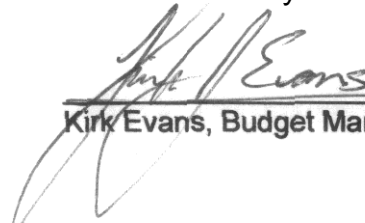
The estimate of open position for FY10 is comparable to FY09. The present projected open position for FY11 is larger (70%) given the expiration of EUD's 25 MW purchase from ConocoPhillips on June 30, 2010. The laddering concept discussed with the Council on July 10, 2007, explains the need for purchase authorization for later years. Note that the laddering concept provides for an open position of not more than 10% in the next fiscal year, 25% in the second fiscal year, and 50% in the third fiscal year.

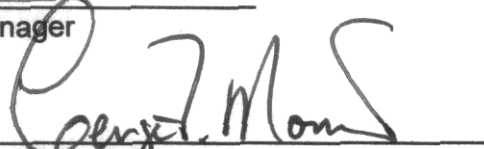
This requested authorization includes the possible purchase of natural gas. As a result of the varying relationship between electric and natural gas prices, at times it is economical to purchase natural gas on a forward basis for consumption by Lodi's share of the NCPA Steam-Injected Gas Turbine (STIG) Plant (located near Lodi at the White Slough Pollution Control Facility). To the extent NCPA purchases gas for the STIG, it would hedge the need for electricity purchases and reduce authorization under this request.

The energy and natural gas purchases will be made with the advice and assistance of the Northern California Power Agency (NCPA).

**FISCAL IMPACT:** The total cost of procurement under the authorization requested is estimated at \$9.2 million for FY09 based on recent market price curves and load and generation forecasts and would be under \$10 million for each of the next three fiscal years.

**FUNDING:** Costs associated with procurement under this authorization will not be incurred until energy is delivered in FY09 through FY11. The City has not adopted a budget for FY09 through FY11 and as a result, funding has not yet been established. Funding for this authorization will be supported by retail electricity Sales revenue, once each fiscal year budget is established and approved by the City Council.

  
Kirk Evans, Budget Manager

  
George F. Morrow  
Electric Utility Director



Est Spot Energy (\$)	\$1,080,000	\$1,140,000	\$450,000	\$410,000	\$1,250,000	\$1,460,000	\$1,250,000	\$1,080,000	\$970,000	\$410,000	\$240,000	\$170,000	\$9,910,000
Local Capacity Reserve (\$)	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$720,000
TOTAL COST ESTIMATE	\$ 1,140,000	\$ 1,200,000	\$ 510,000	\$ 470,000	\$ 1,310,000	\$ 1,520,000	\$ 1,310,000	\$ 1,140,000	\$ 1,030,000	\$ 470,000	\$ 300,000	\$ 230,000	\$ 10,630,000

Load & Resource Balance, Energy & Capacity, FY 11

		JULY 2010	AUG	SEPT	OCT	NOV	DEC	JAN 09	FEB	MAR	APR	MAY	JUNE 2011	TOTALS
LOAD	MWH Total	56,200	52,100	45,200	40,500	37,500	39,700	38,900	36,000	38,500	38,100	41,100	45,400	509,200
														0
NCPA	MWh Subtotal	20,400	16,500	18,900	14,400	1,900	700	2,100	3,300	5,300	12,700	16,400	21,700	134,300
	Geothermal	7,800	7,800	7,500	7,700	7,500	7,700	7,700	6,900	7,300	6,300	7,100	7,300	88,600
	Hydro	3,800	3,100	2,800	2,400	1,800	2,800	3,700	4,800	7,300	8,300	9,300	5,800	55,900
	Exchange Contract	8,800	5,600	8,600	4,300	-7,400	-9,800	-9,300	-8,400	-9,300	-1,900	0	8,600	-10,200
WESTERN	MWh	2,600	2,000	1,300	800	500	700	800	1,000	1,000	1,400	2,200	2,200	16,500
TERM PURC.	MWh	0	0	0	0	0	0	0	0	0	0	0	0	0
RESOURCES	MWh Total	23,000	18,500	20,200	15,200	2,400	1,400	2,900	4,300	6,300	14,100	18,600	23,900	150,800
BALANCE	MWH Total	33,200	33,600	25,000	25,300	35,100	38,300	36,000	31,700	32,200	24,000	22,500	21,500	358,400
Est Spot Energy (\$)		\$2,800,000	\$2,880,000	\$2,000,000	\$1,910,000	\$2,810,000	\$3,100,000	\$2,840,000	\$2,540,000	\$2,570,000	\$2,030,000	\$1,990,000	\$1,640,000	\$29,080,000
Local Capacity Reserve (\$)		\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$840,000
TOTAL COST ESTIMATE		\$ 2,870,000	\$ 2,950,000	\$ 2,070,000	\$ 1,980,000	\$ 2,880,000	\$ 3,170,000	\$ 2,910,000	\$ 2,610,000	\$ 2,640,000	\$ 2,100,000	\$ 2,060,000	\$ 1,710,000	\$ 29,950,000

K-1

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING  
THE CITY MANAGER AND ELECTRIC UTILITY DIRECTOR TO  
PROCURE ENERGY AND CAPACITY FOR FISCAL YEAR  
2008-09 THROUGH FISCAL YEAR 2010-11 AT A COST  
NOT TO EXCEED \$10 MILLION PER YEAR

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WHEREAS, the City of Lodi must procure energy and capacity to economically meet its load serving obligations to its customers for fiscal year 2008-09 with the projected amount of energy remaining to be procured equaling approximately 23% of Lodi's total load serving obligation; and

WHEREAS, the City of Lodi must procure energy and capacity to economically meet its load serving **obligations to its customers in the fiscal years 2009-10 and 2010-11; and**

WHEREAS, to begin reducing Lodi's exposure to this market volatility, staff recommends procurement of electricity and/or natural gas to reduce or eliminate Lodi's net open position for fiscal year 2008-09 and the two subsequent years; and

WHEREAS, it is expected that Lodi's purchases under this Resolution could occur in various amounts and timeframes; and

WHEREAS, Lodi's purchases under this Resolution will conform to the accepted transaction types and other provisions of the City of Lodi Energy Risk Management Policies, adopted January 18, 2006, by City Council Resolution No. 2006-19.

NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager **or his designee** to enter into contractual arrangements to procure additional electricity and/or natural gas to reduce Lodi Electric Utility's open position to meet load-serving obligations for fiscal year 2008-09 and the two subsequent fiscal years in accordance with the City of Lodi Energy Risk Management Policies at a total cost not to exceed \$10 million per year, with this amount for each year reduced by Northern California Power Agency purchases of electricity or natural gas fuel for Lodi's benefit for such year.

Dated: November 21, 2007

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I hereby certify that Resolution No. 2007-\_\_\_\_ was passed and adopted by the Lodi City Council in a regular meeting held November 21, 2007, by the following vote:

AYES: COUNCIL MEMBERS -

NOES: COUNCIL MEMBERS -

ABSENT: COUNCIL MEMBERS -

ABSTAIN: COUNCIL MEMBERS -

RANDI JOHL  
City Clerk

RESOLUTION NO. 2007-234

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING  
THE CITY MANAGER AND ELECTRIC UTILITY DIRECTOR TO  
PROCURE ENERGY AND CAPACITY FOR FISCAL YEAR  
2008-09 THROUGH FISCAL YEAR 2010-11 AT A COST  
NOT TO EXCEED \$10 MILLION PER YEAR

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WHEREAS, the City of Lodi must procure energy and capacity to economically meet its load serving obligations to its customers for fiscal year 2008-09 with the projected amount of energy remaining to be procured equaling approximately 23% of Lodi's total load serving obligation; and

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WHEREAS, to begin reducing Lodi's exposure to this market volatility, staff recommends procurement of electricity and/or natural gas to reduce or eliminate Lodi's net open position for fiscal year 2008-09 and the two subsequent years; and

WHEREAS, it is expected that Lodi's purchases under this Resolution could occur in various amounts and timeframes; and

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NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager or his designee to enter into contractual arrangements to procure additional electricity and/or natural gas to reduce Lodi Electric Utility's open position to meet load-serving obligations for fiscal year 2008-09 and the two subsequent fiscal years in accordance with the City of Lodi Energy Risk Management Policies at a total cost not to exceed \$10 million per year, with this amount for each year reduced by Northern California Power Agency purchases of electricity or natural gas fuel for Lodi's benefit for such year.

Dated: November 21, 2007

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I hereby certify that Resolution No. 2007-234 was passed and adopted by the Lodi City Council in a regular meeting held November 21, 2007, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Hitchcock, Katzakian, Mounce, and  
Mayor Johnson

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

  
RANDI JOHL  
City Clerk



## **Electric Utility Department**

# **Procure Energy & Capacity FY09 - FY11**

**City Council Meeting  
November 21, 2007**



# Overview

- Lodi's annual open position is about 2/3 of its load.
- Since mid FY06, Lodi has implemented a strategy of hedging its future energy “open position”
- Hedging (i.e. purchasing energy in the longer term markets) reduces price risk due to energy market volatility
- In FY08 for instance, strategic electricity and natural gas purchases have reduced open position for the year from about 65% to 6%.





# Laddering Guideline

Timeframe	Open Position
Current Fiscal Year	5%
Next Fiscal Year	10%
2 <sup>nd</sup> Fiscal Year	25%
3 <sup>rd</sup> Fiscal Year	50%



# Open Position

Fiscal Year	%
2008	6
2009	23
2010	25
2011	70



# Open Position

Fiscal Year	Open %	Laddering Guideline (%)
2008	6	5
2009	23	10
2010	25	25
2011	70	50



# Open Position

Fiscal Year	Open		
	%	GWH	\$
2009	23	112	\$9.2M
2010	25	125	\$10.6M
2011*	70	102	\$8.6M

**\*Amount to close from 70% to 50%**



# Recommendation

- EUD's strategy of hedging power supply risk should continue
- Consistent with the Laddering Guidelines, EUD should make strategic energy purchases for FY09-FY11 period.
- City Council authorization to purchase up to \$10M per year for FY09-FY11